

REMARKS

Claims 2-6, 8, and 10-18 are active in the present application. Claims 1, 7, and 19-22 are canceled. Claims 3 and 8 have been amended for clarity. No new matter has been added by these amendments.

Applicants wish to thank Examiner Epps for the courteous discussion granted to the undersigned Applicants' representative on January 17, 2002. During this discussion the claim amendments submitted herein were discussed with respect to the rejections under 35 U.S.C. §112, first paragraph, and 35 U.S.C. §102. The Examiner indicated that such claim amendments would be favorably reconsidered.

Applicants further wish to thank the Examiner for indicating that Claims 3, 9 and 13 are drawn to allowable subject matter. In view of the claim amendments submitted herein, the discussion noted above, and the following remarks favorable reconsideration and allowance of all pending claims is respectfully requested.

The rejection of Claims 2 and 8 under 35 U.S.C. §102(b) over Rathinasabapathi et al is respectfully traversed.

While this reference discloses a choline monooxygenase from *Spinacia oleracea*, the reference does not disclose a recombinant protein comprising the amino acid sequences in SEQ ID NO:2, 4 or 6, or 16 or those proteins which are encoded by DNA that hybridizes under stringent conditions to a DNA comprising SEQ ID NO:1, 3 or 5 and which have choline monooxygenase activity. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claims 2, 4-6, 8, 10-12 and 14-17 under 35 U.S.C. §102(b) over Nuccio et al is respectfully traversed.

Nuccio et al describes an enzymatic activity having choline monooxygenase activity obtained from tobacco plants. However, Nuccio et al provide no disclosure of a sequence of such protein nor the DNA encoding it. Therefore, Nuccio et al do not disclose the recombinant proteins as claimed herein. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claims 2, 4-6, 8-12 and 14-17 under 35 U.S.C. §112, first paragraph is respectfully traversed.

This ground of rejection is based primarily on the former claim recitation of proteins according to SEQ ID NO:2, 4, 6, or 17 having deletions, substitutions, or additions of one or more amino acids. However, the present claims do not recite this phrase and therefore it is submitted that the present claims are sufficiently described to support the claimed invention under the meaning of 35 U.S.C. §112, first paragraph. Withdrawal of this ground of rejection is respectfully requested.

Applicants submit that the present application is now ready for allowance. Early notification of such allowance is earnestly solicited.

Respectfully submitted,

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IN THE CLAIMS

Please cancel Claims 1, 7, and 19-22.

Please amend the claims as follows:

2. (Amended) A choline monooxygenase gene encoding [the following protein (a) or (b):

(a)] a protein comprising the amino acid sequence shown in SEQ ID NO:2, 4 or 6[;

(b) a protein which comprises the amino acid sequence shown in SEQ ID NO:2, 4 or 6 having deletion, substitution or addition of one or several amino acids and which has choline monooxygenase activity].

8. (Amended) A gene encoding [the following peptide (e) or (f);

(e)] a peptide comprising the amino acid sequence shown in SEQ ID NO:17[;

(f) a peptide which comprises the amino acid sequence shown in SEQ ID NO:17 having deletion, substitution or addition of one or several amino acids and which has signal peptide activity].